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Application No. 10/803,182
Response dated Friday, May 19, 2006
Submitted by Louis J. Franco, USPTO Reg. 38,885

Transmitted via facsimile to (571) 273-8300
Reply to Office Action of March 2, 2006
Attorney Phone: 978-582-5550

Amendments to the Claims:**Listing of Claims**

1. (currently amended) A swingbolt hook adapted for cooperative coupling engagement with a swingbolt including (a) an elongated rod having a first end pivotably mountable to a first object and a second end longitudinally opposite the first end, (b) a set of external threads extending along at least a portion of the rod, (c) a hook catch slidably retained by the rod and adapted for longitudinal translation along the rod and (d) an internally threaded nut situated between the second end of the rod and the hook catch such that the nut can be selectively caused to exert a force against the hook catch in the direction of the first end of the rod, the swingbolt hook comprising:

a base having rear and front surfaces and extending along a base axis between first and second ends, the base being adapted for mounting to a second object with the rear surface of the base in contacting engagement with the second object; and

a swingbolt catch adapted for selective retaining engagement with the hook catch of the swingbolt, the swingbolt catch depending from the base and having base and distal ends and first and second opposed surfaces, wherein each of the first and second surfaces extends laterally between left and right sides of the swingbolt catch and wherein (i) the first surface extends between the front surface of the base and the distal end of the swingbolt catch and is adjacent to, and joined through a first transition region with, the front surface of the base, (ii) the second surface extends between the rear surface of the base and the distal end of the swingbolt catch and is joined, through a second transition region, with the rear surface of the base, the first and second surfaces being oriented to one another such that, as viewed into a first cross-sectional plane passing through the first and second surfaces and between the left and right sides of the swingbolt catch, the first and second surfaces extend along,

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respectively, first and second catch-surface axes that converge away from the base such that the swingbolt catch increases in thickness between the first and second surfaces with increased proximity to the base, and (iii) as viewed into a second cross-sectional plane passing through the first and second surfaces and the left and right sides of the swingbolt catch, at least one of (a) the first surface of the swingbolt catch is convex and (b) the second surface of the swingbolt catch is concave.

2. (original) The swingbolt hook of claim 1 wherein the first cross-sectional plane includes the base axis and (a) the first catch-surface axis defines, with the base axis, a first angle that is one of (i) 90° and (ii) acute and (b) the second catch-surface axis defines, with the base axis, a second angle that is more acute than the first angle.
3. (canceled)
4. (canceled)
5. (canceled)
6. (original) The swingbolt hook of claim 2 wherein at least a portion of the hook includes a wear-resistant coating.
7. (original) The swingbolt hook of claim 1 wherein at least a portion of the hook includes a wear-resistant coating.

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8. (currently amended) A hook-and-swingbolt fastener system adapted for selectively coupling first and second objects and comprising:

(a) a swingbolt comprising:

[(i)] an elongated rod having a first end pivotably mountable to a first object and a second end longitudinally opposite the first end,
[(ii)] a set of external threads extending along at least a portion of the rod,
[(iii)] a hook catch slidably retained by the rod for longitudinal translation along the rod and having an interior surface, and
[(iv)] an internally threaded nut situated between the second end of the rod and the hook catch such that the nut can be selectively caused to exert a force against the hook catch in the direction of the first end of the rod; and

(b) a swingbolt hook comprising:

a base having rear and front surfaces and extending along a base axis between first and second ends, the base being adapted for mounting to a second object with the rear surface of the base in contacting engagement with the second object; and

a swingbolt catch adapted for selective retaining engagement with the hook catch of the swingbolt, the swingbolt catch depending from the base and having base and distal ends and first and second opposed surfaces, wherein each of the first and second surfaces extends laterally between left and right sides of the swingbolt catch and wherein (i) the first surface extends between the front surface of the base and the distal end of the swingbolt catch and is adjacent to, and joined through a first transition region with, the front surface of the base and (ii) the second surface extends between the rear surface of the base and the distal end of the swingbolt catch and is joined, through a second transition

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region, with the rear surface of the base, the first and second surfaces being oriented to one another such that, as viewed into a first cross-sectional plane passing through the first and second surfaces and between the left and right sides of the swingbolt catch, the first and second surfaces extend along, respectively, first and second catch-surface axes that converge away from the base such that the swingbolt catch increases in thickness between the first and second surfaces with increased proximity to the base, wherein the swingbolt and swingbolt hook cooperate such that, when the interior surface of the hook catch is placed in contacting engagement with the swingbolt catch and the nut is threadably advanced toward the first end of the rod so as to exert at least a predetermined minimum force against the hook catch, the swingbolt catch and hook catch are capable of being drawn into retaining engagement.

9. (original) The hook-and-swingbolt fastener system of claim 8 wherein the first cross-sectional plane includes the base axis and (a) the first catch-surface axis defines, with the base axis, a first angle that is one of (i) 90° and (ii) acute and (b) the second catch-surface axis defines, with the base axis, a second angle that is more acute than the first angle.

10. (original) The hook-and-swingbolt fastener system of claim 9 wherein, as viewed into a second cross-sectional plane passing through the first and second surfaces and the left and right sides of the swingbolt catch, at least one of (i) the first surface of the swingbolt catch is convex and (ii) the second surface of the swingbolt catch is concave.

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11. (original) The hook-and-swingbolt fastener system of claim 8 wherein, as viewed into a second cross-sectional plane passing through the first and second surfaces and the left and right sides of the swingbolt catch, at least one of (i) the first surface of the swingbolt catch is convex and (ii) the second surface of the swingbolt catch is concave.
12. (original) The hook-and-swingbolt fastener system of claim 11 wherein at least a portion of the hook includes a wear-resistant coating.
13. (original) The hook-and-swingbolt fastener system of claim 9 wherein at least a portion of the hook includes a wear-resistant coating.
14. (original) The hook-and-swingbolt fastener system of claim 8 wherein at least a portion of the hook includes a wear-resistant coating.
15. (canceled)
16. (canceled)
17. (canceled)
18. (canceled)
19. (canceled)
20. (canceled)

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21. (new) A hook-and-swingbolt fastener system adapted for releasably securing first and second objects in fixed relative positions, the fastener system comprising:

(a) a swingbolt comprising:

an elongated rod having a first end pivotably mountable to a first object and a second end longitudinally opposite the first end,

a set of external threads extending along at least a portion of the rod,

a hook catch slidably retained by the rod for longitudinal translation along the rod and having an interior surface, and

an internally threaded nut situated between the second end of the rod and the hook catch such that the nut can be selectively caused to exert a force against the hook catch in the direction of the first end of the rod; and

(b) a swingbolt hook comprising:

a base having rear and front surfaces and extending along a base axis between first and second ends, the base being adapted for mounting to a second object with the rear surface of the base in contacting engagement with the second object; and

a swingbolt catch adapted for selective retaining engagement with the hook catch of the swingbolt, the swingbolt catch depending from the base and having base and distal ends and first and second opposed surfaces, wherein each of the first and second surfaces extends laterally between left and right sides of the swingbolt catch and wherein (i) the first surface extends between the front surface of the base and the distal end of the swingbolt catch and is adjacent to, and joined through a first transition region with, the front surface of the base, (ii) the second surface extends between the rear surface of the base and the distal end of the

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swingbolt catch and is joined, through a second transition region, with the rear surface of the base, the first and second surfaces being oriented to one another such that, as viewed into a first cross-sectional plane passing through the first and second surfaces and between the left and right sides of the swingbolt catch, the first and second surfaces extend along, respectively, first and second catch-surface axes that converge away from the base such that the swingbolt catch increases in thickness between the first and second surfaces with increased proximity to the base, and (iii) as viewed into a second cross-sectional plane passing through the first and second surfaces and the left and right sides of the swingbolt catch, at least one of (a) the first surface of the swingbolt catch is convex and (b) the second surface of the swingbolt catch is concave;

wherein the swingbolt and swingbolt hook cooperate such that when (i) the elongated rod is pivotably mounted to a first object, (ii) the base of the swingbolt hook is mounted to a second object, and (iii) the interior surface of the hook catch is placed in contacting engagement with the swingbolt catch, the swingbolt catch and hook catch are capable of being drawn into retaining engagement by the threadable advancement of the nut toward the first end of the rod so that a force is exerted against the hook catch and the swingbolt catch in order to releasably secure the first and second objects in fixed relative positions.

22. (new) The hook-and-swingbolt fastener system of claim 21 wherein the first cross-sectional plane includes the base axis and (a) the first catch-surface axis defines, with the base axis, a first angle that is one of (i) 90° and (ii) acute and (b) the second catch-surface axis defines, with the base axis, a second angle that is more acute than the first angle.

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23. (new) The hook-and-swingbolt fastener system of claim 22 wherein at least a portion of the swingbolt hook includes a wear-resistant coating.
24. (new) The hook-and-swingbolt fastener system of claim 21 wherein at least a portion of the swingbolt hook includes a wear-resistant coating.